CLAIMS

What is claimed is:

1. A redundant management control arbitration system for use with an information platform's management controller to allow the information platform to install with at least two management controllers, including an active management controller and a standby management controller as redundancy backup to the active management controller, and which allows the firstly-installed management controller to be automatically set to active mode and the secondly-installed management controller to be automatically set to standby mode, and further allows the standby management controller to be promptly switched to active mode in the event of a failure to the active management controller for the purpose of allowing the information platform to continue to operate normally in this event;

the redundant management control arbitration system comprising:

a management controller installation status detecting module, which is capable of detecting whether the information platform has been installed with another management controller after its associated management controller is installed to the information platform;

an operating mode setting module, which is capable of setting the associated management controller to active mode in the event that the management controller installation status detecting module detects that no other management controller is installed on the information platform, and to standby mode in the event that another management controller has been already installed on the information platform;

a failure detecting module, which is activated in the event of the associated management controller being set to active mode to continually detect whether the associated management controller operates normally, and if not, capable of issuing a standby enable signal;

a standby activation module, which is capable of being activated in response to the standby enable signal from the failure detecting module to switch the standby management controller to active mode; and

a task handover module, which is capable of being activated in response to the standby enable signal from the failure detecting module to hand over all the current management control functions that are handled by the failed management controller to the standby management controller.

2. The redundant management control arbitration system of claim 1, wherein the information platform is a blade server.

3. The redundant management control arbitration system of claim 2, wherein each management controller of the blade server is connected to a group of interfaces including a configuration data reception interface, a SerDeS (Serializer and Deserializer) interface, a HiGiG interface, an IPMI (Intelligent Platform Management Interface) interface, an I2C (Inter Integrated Circuit) interface, an RJ45 Giga interface, an FC (Fibre Channel) interface, a UART (Universal Asynchronous Receiver/Transmitter) interface, and a Magnetic RJ45 interface.

4. The redundant management control arbitration system of claim 2, wherein the active management control module and the standby management control module are interconnected to each other by a group of redundancy-oriented interfaces including an arbitration/switching control signal bus, a 10/100 Ethernet bus, and a HiGiG bus.

5. The redundant management control arbitration system of claim 1, wherein each management controller is a BMC (Baseboard Management Controller) unit that supports the standard IPMI (Intelligent Platform Management Interface) protocol.

6. The redundant management control arbitration system of claim 1, wherein the controller installation status detecting module, the operating mode setting module, the failure detecting module, and the standby activation module are implemented as a single CPLD/ASIC (Complex Programmable Logic Device & Application Specific Integrated Circuit) chipset.

7. A redundant management control arbitration system for use with a blade server's management controller to allow the blade server to install with at least two management controllers, including an active management controller and a standby management controller as redundancy backup to the active management controller, and which allows the firstly-installed management controller to be automatically set to active mode and the secondly-installed management controller to be automatically set to standby mode, and further allows the standby management controller to be promptly switched to active mode in the event of a failure to the active management controller for the purpose of allowing the blade server to continue to operate normally in this event;

the redundant management control arbitration system comprising:

a management controller installation status detecting module, which is capable of detecting whether the blade server has been installed with another management controller after its associated management controller is installed to the blade server;

an operating mode setting module, which is capable of setting the associated management controller to active mode in the event that the management controller installation status detecting module detects that no other management controller is installed on the blade server, and to standby mode in the event that another management controller has been already installed on the blade server;

a failure detecting module, which is activated in the event of the associated management controller being set to active mode to continually detect whether the associated management controller operates normally, and if not, capable of issuing a standby enable signal;

a standby activation module, which is capable of being activated in response to the standby enable signal from the failure detecting module to switch the standby management controller to active mode; and

a task handover module, which is capable of being activated in response to the standby enable signal from the failure detecting module to hand over all the current management control functions that are handled by the failed management controller to the standby management controller.

8. The redundant management control arbitration system of claim 7, wherein each management controller of the blade server is connected to a group of interfaces including a configuration data reception interface, a SerDeS (Serializer and Deserializer) interface, a HiGiG interface, an IPMI (Intelligent Platform Management Interface) interface, an I2C (Inter Integrated Circuit) interface, an RJ45 Giga interface, an FC (Fibre Channel) interface, a UART (Universal Asynchronous Receiver/Transmitter) interface, and a Magnetic RJ45 interface.

9. The redundant management control arbitration system of claim 7, wherein the active management control module and the standby management control module are interconnected to each other by a group of redundancy-oriented interfaces including an arbitration/switching control signal bus, a 10/100 Ethernet bus, and a HiGiG bus.

10. The redundant management control arbitration system of claim 7, wherein each management controller is a BMC (Baseboard Management Controller) unit that supports the standard IPMI (Intelligent Platform Management Interface) protocol.

11. The redundant management control arbitration system of claim 7, wherein the controller installation status detecting module, the operating mode setting module, the failure detecting module, and the standby activation module are implemented as a single CPLD/ASIC (Complex Programmable Logic Device & Application Specific Integrated Circuit) chipset.

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